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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,788	09/30/2003	Walter E. Donovan	NVIDP030A	8349
28875	7590	04/07/2005	EXAMINER	
Zilka-Kotab, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120			JANKUS, ALMIS R	
			ART UNIT	PAPER NUMBER
			2672	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,788

Applicant(s)

DONOVAN ET AL.

Examiner

Almis R Jankus

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 29-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 29-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's amendments and response have been fully considered in preparing this Office Action.

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1-4, 9-12, and 15 stand rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4, 5-8, and 9 respectively, of prior U.S. Patent No. 6593923. This is a double patenting rejection.

Claims 1-4, 9-12, and 15 are identical to claims 1-4, 5-8, and 9 respectively of prior U.S. Patent No. 6593923.

Although the wording of some claims may vary slightly, the claim scopes are identical.

Art Unit: 2671

4. Claims 30, 31, 33, 34, 36, 37, 39, 40 and 44 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 7, 8, 9, 10, 17, 18, 19, 20 and 9 respectively, of prior U.S. Patent No. 6690372. This is a double patenting rejection.

The rejected claims depend from other claims; however, after including all of the limitations of the claims from which these depend, they are identical to the above patent claims.

Although the wording of some claims may vary slightly, the claim scopes are identical.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4, 9-12, 15, 29, 32, 35, 38, and 41-43 are rejected under 35 U.S.C. 102(a) as being anticipated by Woo et al.

With respect to claim 1, Woo et al. teaches the claimed (a) performing an offset operation to generate a depth value while rendering a primitive, at page 250; (b)

identifying a value of a slope associated with a primitive, at pages 251-252; and (c) conditionally clamping the depth value based on the value of the slope, at pages 251-253.

Claim 10 is similar to claim 1 but further requires a code segment for performing the various operations. Woo et al. Teaches this at pages 250-253.

Claim 15 is similar to claim 1 but further requires a logic for performing the various operations. Woo et al. Teaches this at pages 250-253.

With respect to claim 29, Woo et al. teaches the claimed (a) performing a first shading calculation in order to generate output, at page 422 figure 9-13, "texture image 0"; (b) saving the output, at page 422 with the teaching of "where each texture unit performs a single texturing operation and successively passes its result onto the next texture unit"; and (c) performing a second shading calculation using the output in order to generate further output, at page 422 figure 9-13, "texture image 1".

Claims 35 and 41 are similar to claim 29 but further require a code segment and logic respectively. Woo et al. Teaches both code segments and logic through their Guide.

Claim 2 depends from claim 1 and further requires the shadow mapping process to include rendering the primitive from a light space perspective. Woo et al. teaches this at pages 583-584.

Claim 3 depends from claim 1 and further requires the depth value to be clamped if the value of the slope is greater than a predetermined amount. Woo et al. teaches this at page 252 with the teaching of a nonzero value for factor.

Claim 4 depends from claim 1 and further requires the clamping to include the steps of: identifying vertex depth values of vertices of the primitive, comparing at least one of the vertex depth values with the depth value generated by the offset operation, and clamping the depth value generated by the offset operation based on the comparison. Woo et al. teaches this at page 251.

Claim 9 depends from claim 1 and further requires the offset operation to include a polygon offset operation in accordance with the OpenGL® programming language. Woo et al. teaches the OpenGL programming language.

Claim 11 is similar to claim 3 and is rejected under similar respective rationale.

Claim 12 is similar to claim 4 and is rejected under similar respective rationale.

Claim 32 depends from claim 29 and further requires the first and second shading calculations together to include a diffuse color variable, a specular color variable, and an ambient color variable. Woo et al. Teaches this at pages 211-218.

Claim 38 is similar to claim 32 and is rejected under similar respective rationale.

Claim 42 further requires the shading calculations to involve shadow modulation. Woo et al. Teaches this at pages 211-218.

Claim 43 further requires the shadow modulation to involve more than one function. Woo et al. Teaches this at pages 211-218.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5-8, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the maximum vertex depth value" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the greatest vertex depth value" at line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the least one of the vertex depth values" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the least one of the vertex depth values" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the maximum vertex depth value" in line 4, and "the greatest vertex depth value" at line 5. There is insufficient antecedent basis for these limitations in the claim.


Claim 14 recites the limitation "the least one of the vertex depth values" in line 4. There is insufficient antecedent basis for this limitation in the claim.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almis R Jankus whose telephone number is 703-305-9795. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AJ



ALMIS R. JANKUS
PRIMARY EXAMINER